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Remarks

Claims 11-16 and 18 remain pending in this application after entry of this Amendment. The Examiner has rejected claims 1-3, 5, 7-9 and 17 under 35 U.S.C. § 102(b) as being anticipated by O'Callaghan. The Examiner has rejected claims 11-15 and 18 under 35 U.S.C. § 102(e) as being anticipated by Atalla. The Examiner has rejected claims 4 and 6 under 35 U.S.C. § 103(a) as being unpatentable over O'Callaghan in view of Rao. The Examiner has rejected claim 10 under 35 U.S.C. § 103(a) as being unpatentable over O'Callaghan in view of Logan. The Examiner has rejected claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Atalla in view of Logan. Applicant has canceled claims 1-10 and 17. Applicant has amended independent claims 11 and 18 to more particularly point out the invention. Applicant has amended dependent claims 13-16 for clarity. Applicant believes that claims 11-16 and 18 are patentable over the prior art of record. Reconsideration and reexamination of this application, as amended, are respectfully requested.

The claimed invention as defined by claim 11, as amended, is a method for manipulating a broadcast signal in a communication system. The communication system includes a headend that receives the broadcast signal and that sends programming to a plurality of hubs with each hub sending the programming to at least one node that distributes the programming to end users. The method comprises receiving the signal at the headend, establishing a buffered storage queue at the headend that receives the signal, and transmitting a stream from the headend. The stream passes through a hub and through a node to reach an end user. The stream is derived from the signal, and the stream originates from a user selected playback point in the buffered storage queue.

It is appreciated that the claimed invention as defined in claim 11 recites that the communication system includes a headend, a plurality of hubs, with each hub sending the programming to at least one node that distributes the programming to end users. Advantageously, the buffered storage queue is located at the headend and the stream is transmitted from the headend, with the stream originating from a user selected playback point

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in the buffered storage queue, and with the stream passing through a hub and a node to reach the end user.

Atalla describes a video on demand distribution system and method. Atalla uses a very specific architecture, and does not describe or suggest the claimed invention. Specifically, Atalla does not describe or suggest a method used in the communication system including a headend, a plurality of hubs, and a node that distributes the programming to end users. Further, Atalla does not describe or suggest transmitting a stream from the headend that originates from a user selected playback point in the buffered storage queue with the stream passing through a hub and through a node to reach the end user. In contrast to the claimed invention, Atalla describes a number of community systems (Figure 1). A particular community system (Figure 2) includes moving memory modules, a microcell access switch, and a number of microcells. In operation of the Atalla system, a user requests a video that is either present in the moving memory modules or may be downloaded thereto. Once the demanded video is present in the moving memory modules, Atalla describes the use of a microcell to control the sending of the video to the user. The microcell does utilize a buffer, that through a bus interface, receives information from the moving memory modules. However, the moving memory modules cyclically distribute the entire set of programs (Abstract). As such, the microcell access switch acts as a local node that serves a number of users. The video source or headend in Atalla is the master file/host 11 of Figure 1. In operation, the master file/host sends an entire video file to the microcell access switch at one time. The entire video file is then cyclically distributed by the moving memory modules.

The complex distribution scheme in Atalla is far different than the claimed invention. The Atalla system and method operate in a specific manner that is different than the headend/hub/node scheme of Applicants' claimed invention. The Examiner has attempted to generalize the operation of Atalla to apply Atalla to anticipate Applicants' claims. However, the Atalla system is a complex video distribution system that operates in a specific way and fails to readily describe or suggest the claimed invention as set forth in independent claim 11. As such, Applicants respectfully request that the Examiner withdraw the rejections based on Atalla.

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Claims 12-16 depend from claim 11 and are also believed to be patentable. Claim 18 has been amended to recite similar language to amended claim 11 and is believed to be patentable for similar reasons.

Applicants respectfully request that the Examiner reconsider this case, and allow the pending claims.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

11. (Amended) A method for manipulating a broadcast signal in a communication system including a headend that receives the broadcast signal and that sends programming to a plurality of hubs with each hub sending the programming to at least one node that distributes the programming to end users, the method comprising:

receiving the signal at [a] the headend;

establishing a buffered storage queue at the headend that receives the signal; and
transmitting a stream from the headend, the stream passing through a hub and through a node to reach an end user, the stream being derived from the signal, and the stream originating from a user selected playback point in the buffered storage queue.

13. (Amended) The method of claim 11 wherein the stream is being received and played at [the] a destination, the method further comprising:

in response to a user at the destination requesting to pause, sliding the user selected playback point within the queue at such a rate to cause the playback point to remain substantially stationary in time; and

in response to a user at the destination requesting to resume, stopping the sliding.

14. (Amended) The method of claim 11 wherein the stream is being received and played at [the] a destination, the method further comprising:

in response to a user at the destination requesting to rewind, sliding the user selected playback point within the queue at such a rate to cause the playback point to move backward in time; and

in response to a user at the destination requesting to resume, stopping the sliding.

15. (Amended) The method of claim 11 wherein the stream is being received and played at [the] a destination, the method further comprising:

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in response to a user at the destination requesting to fast-forward, sliding the user selected playback point within the queue at such a rate to cause the playback point to move forward in time; and

in response to a user at the destination requesting to resume, stopping the sliding.

16. (Amended) The method of claim 11 wherein the stream has a destination, and wherein the method further comprises:

receiving the stream at the destination;

establishing a buffered storage queue at the destination that receives the [signal] stream; and

in response to a user selecting a desired position in the destination buffered storage queue, playing the stream at the destination from the desired position in the destination buffered storage queue.

18. (Amended) A system for manipulating a broadcast signal, the system comprising:

a communication system including a headend, a plurality of hubs and a plurality of nodes that distribute programming to end users, the headend [for] receiving the signal, the headend being operative to establish a buffered storage queue at the headend, and the headend being further operative to transmit a stream from the headend, the stream passing through a hub and through a node to reach an end user, the stream being derived from the signal, and the stream originating from a user selected playback point in the buffered storage queue.